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ATTN: Examiner: Lina Yang
             Art Unit: 2665

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ENCLOSED ARE:
* Appeal Brief (9 pages)
* Transmittal Letter (2 pages)

APPLICANT: Odenwalder et al.
ASSIGNEE: QUALCOMM Incorporated
SERIAL NO.: 09/978,425
FILED: October 15, 2001
FOR: METHOD AND APPARATUS FOR PROCESSING SHARED SUBPACKETS IN A
COMMUNICATION SYSTEM

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Attorney Docket No. 020034

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of) Odenwalder et al.)) Serial No. 09/978,425)) Filed: October 15, 2001)	For: METHOD AND APPARATUS FOR PROCESSING SHARED SUBPACKETS IN A COMMUNICATION SYSTEM Group No. 2665

TRANSMITTAL LETTER

Mail Stop Appeal Briefs - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In response to the Notice of Appeal filed April 10, 2006, Applicants request a one-month extension of time from June 10, 2006 to July 10, 2006. Enclosed is:

CERTIFICATE OF MAILING/TRANSMISSION (37 CFR 1.8(a))

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Depositor's Name: _____ *(type or print name)*	Depositor's Name: Stacy Durmauf *(type or print name)* Signature:
Date: June 27, 2006	

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(Customer No. 23696)

1.   Appeal Brief;

Please charge Deposit Account No. 17-0026 of QUALCOMM Incorporated in the amount of $500.00 for the Appeal Brief and $120.00 for the one-month extension of time. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to said Deposit Account No. 17-0026. The Commissioner is further hereby authorized to charge to said Deposit Account No. 17-0026, pursuant to 37 CFR 1.25(b), any fee whatsoever which may become properly due or payable, as set forth in 37 CFR 1.16 to 37 CFR 1.18 inclusive, for the entire pendency of this application without specific additional authorization.

Respectfully submitted,

Dated: June 27, 2006   By: _____
                                             Ramin Mobarhan, Reg. No. 50,182
                                             (858) 658-2447

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(Customer No. 23696)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE   JUN 27 2006

In Re Application of:	)	
Odenwalder et al.	)	**For: METHOD AND APPARATUS**
	)	**FOR PROCESSING SHARED**
	)	**SUBPACKETS IN A**
Serial No.: 09/978,425	)	**COMMUNICATION SYSTEM**
	)	
Examiner: Lina Yang	)	
	)	
Filed: October 15, 2001	) Group No. 2665	

BRIEF ON APPEAL

Mail Stop Appeal-Brief-Patent
Commissioner of Patents and Trademarks
Alexandria, VA 22313-1450

Attention: Board of Patent Appeals and Interferences

Dear Commissioner:

    This brief is submitted pursuant to 37 C.F.R. § 41.37 and in the format required by 37 C.F.R. § 41.37(c) and with the fee required by 37 C.F.R. § 41.20(b)(2):

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Depositor's Name: _____ *(type or print name)*	Depositor's Name: _Stacy Durmrauf_ *(type or print name)*
Date: _____	Date: _June 27, 2006_
Signature: _____	Signature: _____

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I. REAL PARTY IN INTEREST

The real party in interest is QUALCOMM Incorporated, 5775 Morehouse Drive, San Diego, CA, 92121.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-5, 8, and 18 have been cancelled. Claims 6, 7, 9-17, and 19-21 stand rejected. The rejections of Claims 6, 7, 9-17, and 19-21 are appealed.

IV. STATUS OF AMENDMENTS

No amendments after final rejection have been made.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The claimed inventions relate to multiple access communication systems. Such communication systems typically involve data communication from a single hub to multiple subscriber units over a forward data transmission channel. Some proposed systems for wireless multiple access communication utilize multiple control channels transmitted simultaneously with the forward data transmission channel. In some embodiments, the control channels provide information regarding which time slots (or sequential series of time slots) of the forward data transmission channel include data for each subscriber unit sharing the forward data transmission channel. The control channels also provide information that allows each subscriber unit to successfully decode the data it is intended to receive during the time slot. The inventions relate to the generation and use of these control channels so that the forward data transmission channel is utilized effectively with flexibility and minimal overhead.

Figure 10 and the text describing this Figure at paragraphs 1076-1079 of the specification describe a specific embodiment of the inventions of the two independent Claims 6 and 12. In these embodiments, a control channel is used to provide one or more subscriber unit identifiers (such as the MAC IDs) indicating the set of subscriber units which are to receive data in a given time slot (Paragraph 1076). This control channel also contains a number indicating how many additional control channels are provided when a time slot is to be shared among multiple subscriber units (Paragraph 1076). Typically, the number of additional control channels provided will be equal to

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the number of subscriber units that are sharing the time slot. The number and identities of the subscriber units sharing a time slot may vary with different time slots.

When multiple identifiers are provided in the first control channel, the corresponding subscriber units each select one of the additional control channels from which each will obtain the respective information necessary to decode data in the time slot (Paragraphs 1076 and 1077). To determine which of the additional control channels should be selected by a given subscriber unit, a relationship between each identifier position in the first control channel and each of the additional control channels is utilized. In one embodiment, the location of each MAC ID in the set of MAC IDs in the first control channel corresponds to a Walsh code index for demodulating a selected control channel. For example, increasing order of MAC ID in the MAC ID list of the first control channel may correspond to increasing Walsh code index to be used for demodulating the additional control channel by a subscriber unit with a given MAC ID in the list (Paragraph 1078).

Once the subscriber units sharing the time slot demodulate their respective control channels, they use the information provided therein to decode the data sent to them in the time slot (Paragraph 1079).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The first ground of rejection to be reviewed is the Examiner's rejection of Claim 6, 11-12, 14, and 21 as anticipated by U.S. Patent Application Publication 2002/0167992 to Das et al. ("Das"). The second ground of rejection to be reviewed is the Examiner's rejection of Claims 7, 9, 13, 15-17, 19, and 20 as obvious over Das in view of U.S. Patent 6,665,309 to Hsu et al. ("Hsu").

VII. ARGUMENT

The application contains independent Claims 6 and 12. Both have been rejected as anticipated by Das. As discussed below, applicants respectfully submit that the rejection is improper.

The disclosure of Das

Das is directed to detecting errors in receiving a 2 bit data field of a primary control channel. Errors are detected by scrambling the content of a secondary control channel in a predefined way that depends on the 2 bits of data in the first control channel. If the secondary control channel information is received without errors after being descrambled in accordance with the content of

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the received primary control channel bits, this will provide verification that the 2 bits of the primary control channel were received without errors (Das, Paragraphs 0016 and 0017).

The secondary control channel of Das contains the MAC ID of the subscriber unit that is to receive data in the time slot.   In Das, both the primary and secondary control channels are demodulated by all of the subscriber units sharing the forward data transmission channel. However, only the unit with the matching MAC ID provided in the second control channel will demodulate and decode the data sent during the time slot (Das, Paragraphs 0008 and 0009).

Except for the data dependent scrambling, the control channel format of Das is set forth in the CDMA2000-1x-EV-DV communication protocol as described in Paragraphs 1012-1014 of the Background section of the present applicants' patent specification.

The rejection of Claim 6

There are several elements of Claim 6 that Das does not disclose or suggest. First there is no control channel in Das that includes "a number of control channels" as set forth in Claim 6. The Examiner does not point to any section of Das with such a disclosure. The system of Das always uses two control channels, and no control channel contains any information related to "a number" of control channels as set forth in Claim 6. In advantageous embodiments of the invention as described above, this number may specify how many subscriber units are sharing the time slot, wherein an additional control channel is provided for each of the subscriber units sharing the slot.

Moving to the second element of Claim 6, Das also fails to describe a system where a second control channel is demodulated if the identity of a subscriber station is identical to the identity sent in the first control channel. In Das, the first control channel is a 2-bit data field, and the second control channel contains the MAC ID of the intended subscriber recipient. Both of these control channels are demodulated by all subscriber units at least to the extent necessary to obtain the MAC ID in the second control channel. Das does not disclose any decision to demodulate a control channel based on the content of an identifier received from another control channel.

Furthermore, Das does not disclose determining a position of a MAC ID in a control channel. On pages 2 and 3 of the Office Action, the Examiner points to Figure 1 and Paragraph 0016 of Das for this limitation. However, the cited portions of the reference are directed only to determining how many sequential time slots are dedicated to a given data subpacket. No identifier position is determined. It may be that the Examiner is asserting that the determination

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of subpacket transmission length shown in Das defines an identifier position because the
"position" of the next MAC ID will depend on the number of time slots used by previous
subpackets. However, even if this were accepted for the sake of argument, there is no
disclosure in Das of "selecting a second control channel in accordance with said determined
position" as is also recited in Claim 6. Das does not disclose any selection of a control channel.
Das only discloses demodulating a primary and secondary control channel by all subscriber
units for all time slots. No control channel selection is made based on any criteria, let alone
based on a position of an identifier provided in another control channel.

For the above reasons, Claim 6 is not anticipated by Das. The other prior art reference used
by the Examiner in the rejections is U.S. Patent 6,665,309 to Hsu. This reference does not cure
the deficiencies of Das. None of the above discussed claim elements are present in Hsu, and the
Examiner has not asserted that they are. For the above reasons, applicants respectfully request
that the Examiner's rejections be reversed.

The rejection of Claim 12

Independent Claim 12 contains substantively the same limitations discussed above with
respect to Claim 6, and is not anticipated by Das for at least the same reasons.

The rejections of dependent Claims 7, 9-17, and 19-21

The remaining claims depend from either independent Claim 6 or independent Claim 12,
and have been rejected as either anticipated by Das or as obvious over Das combined with Hsu.
It is respectfully submitted that these claims are also patentable for at least the same reasons as
set forth above.

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VIII. CLAIMS APPENDIX

Claims 1-5. (Cancelled)

6. (Previously Presented) A method for processing shared sub-packets at a subscriber station, the method comprising:

demodulating a first control channel comprising an identity of at least one subscriber station and a number of control channels;

demodulating a second control channel comprising information enabling a subscriber station to demodulate a traffic channel if the identity is identical to an identity of the subscriber station; and

demodulating the traffic channel in accordance with said enabling information;

wherein said demodulating a second control channel further comprises determining a position of the identity within the received first control channel, selecting a second control channel in accordance with said determined position, and demodulating said selected second control channel.

7.   (Original) The method as claimed in claim 6, wherein said demodulating a first control channel comprising identity of a subscriber station comprises:
demodulating a pre-determined control channel.

8.   (Cancelled)

9.   (Previously Presented) The method as claimed in claim 6, wherein said selecting a second control channel in accordance with said determined position comprises:
establishing a code encoding a second control channel in accordance with a relationship between said determined position and the code; and
demodulate the second control channel encoded by said established code.

10.   (Original) The method as claimed in claim 6, wherein said demodulating the traffic channel in accordance with said enabling information comprises:

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determining a size of traffic channel unit and a number of code channels in accordance with the enabling information if the traffic channel unit is code multiplexed; and

demodulate the traffic channel unit.

11.   (Original) The method as claimed in claim 6, wherein said demodulating the traffic channel in accordance with said acquired enabling information comprises:

determining a number of sub-divisions of traffic channel unit and a starting sub-division in accordance with the enabling information if the traffic channel unit is time multiplexed; and

demodulate the traffic channel unit.

12.   (Previously Presented) A method for processing shared sub-packets in a communication system, the method comprising:

generating a first control channel comprising an identity of at least one subscriber station and a number of second control channels;

generating at least one second control channel comprising information enabling the at least one subscriber station to demodulate a traffic channel;

transmitting the control channels:

demodulating the received first control channel;

determining an identity of at least one subscriber station and a number of second control channels in accordance with said demodulated first control channel;

demodulating a second control channel comprising information enabling a subscriber station to demodulate a traffic channel if the identity is identical to an identity of the subscriber station; and

demodulating the traffic channel in accordance with said enabling information;

wherein said demodulating a second control channel further comprises determining a position of the identity within the received first control channel, selecting a second control channel in accordance with said determined position, and demodulating said selected second control channel.

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13.   (Original) The method as claimed in claim 12, wherein said generating at least one second control channel comprising information enabling the at least one subscriber station to demodulate a traffic channel comprises:

generating at least one second control channel comprising a number of code channels encoding a unit of the traffic channel.

14.   (Original) The method as claimed in claim 12, wherein said generating at least one second control channel comprising information enabling the at least one subscriber station to demodulate a traffic channel comprises:

generating at least one second control channel comprising a number of sub-divisions and a starting sub-division of a unit of the traffic channel.

15.   (Original) The method as claimed in claim 12, wherein said transmitting the control channels comprises:

transmitting the first control channel at a power required by a subscriber station with the worst forward link quality metric for which the first control channel is intended.

16.   (Original) The method as claimed in claim 15, further comprising:

transmitting the at least one second control channel at a power required by the at least one subscriber station for which the at least one second control channel is intended.

17.   (Original) The method as claimed in claim 12, wherein said demodulating the received first control channel comprises:

demodulating a pre-determined control channel.

18.   (Cancelled).

19.   (Previously Presented) The method as claimed in claim 12, wherein said selecting a second control channel in accordance with said determined position comprises:

establishing a code encoding a second control channel in accordance with a relationship between said determined position and the code; and

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demodulate the second control channel encoded by said established code.

20.   (Original) The method as claimed in claim 12, wherein said demodulating the traffic channel in accordance with said enabling information comprises:

determining a size of traffic channel unit and a number of code channels in accordance with the enabling information if the traffic channel unit is code multiplexed; and

demodulate the traffic channel unit.

21.   (Original) The method as claimed in claim 12, wherein said demodulating the traffic channel in accordance with said acquired enabling information comprises:

determining a number of sub-divisions of traffic channel unit and a starting sub-division in accordance with the enabling information if the traffic channel unit is time multiplexed; and

demodulate the traffic channel unit.

IX. EVIDENCE APPENDIX

None

X. RELATED PROCEEDINGS APPENDIX

None

Respectfully submitted,

Dated: June 27, 2006 _____   By: _____
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